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ABSTRACT

In 2001, the U.S. District Court for Middle Tennessee approved a consent decree to end the federal oversight of the Tennessee higher education integration plan. The consent decree required an examination of the work climates of higher education campuses, and a Web-based survey was developed to measure campus climate in Tennessee. Participation was voluntary, but all faculty and administrators were urged to complete the survey. The final dataset contained 2,784 cases. This analysis is restricted to questions about the dimensions of campus climate, including dimensions by racial and ethnic subgroup, and the focus of this paper is the steps taken to establish the reliability and validity of the survey, the Tennessee Higher Education Campus Climate Survey. Contemporary issues in Web-based survey design and administration are discussed. Factor analytic results show that perception differentials among subsamples can be detected more systematically through factor analysis. The study is considered a work-in-progress since many other analyses could be conducted, such as the derivation of goodness-of-fit statistics for factor structure among subsamples. The survey instrument is attached. (Contains 8 tables and 26 references.) (SLD)

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Measuring Campus Climate Through a Web-based Survey and Probing into Some Facets of Perceived Campus Climate

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Measuring Campus Climate Through a Web-based Survey and Probing into Some Facets of Perceived Campus Climate

With the introduction of the Internet into the workplace, many organizations are conducting Web-based surveys for institutional planning and development. For the field of survey research, this presents an enormous challenge with issues such as survey design, technical specifications and requirements (hardware and software), respondent-anonymity and response rates, file creation and data extraction, and data usability (Becker & Sweeney, 2002; Lee et al., 2002; Mertler, 2002; Lucas & Valentine, 2002; Walston, Lissitz & Rudner, 2001). This paper addresses these issues while examining some theoretical questions in relation to campus climate as perceived by different constituents for which a statewide survey was used.

Preamble

In 2001, the US District Court for Middle Tennessee approved the Geier Consent Decree between Rita Sanders Geier, et al., Plaintiffs, and Don Sunquist, et al., defendants to end the long-standing federal oversight of the federally mandated Tennessee higher education integration plan (Geier, et al., v. Sunquist, et al., 2001). Among other obligations, the Consent Decree required an examination of the work climates of the higher education campuses. To fulfill this requirement, the Tennessee Board of Regents (TBR) and the University of Tennessee (UT) System commissioned a study of the campus climate. For TBR and UT systems, the first author conducted a Web-based survey to measure campus climate in TN, which generated the data for this study.

Instrumentation

A review of the literature on campus climate was conducted to identify research findings and survey instruments designed for assessing campus climate. The emphasis was on identifying instruments and issues related to campus climate. The search was based on a framework developed by a statewide committee appointed to address Geier Consent Decree issues. A number of instruments were found and examined including the IRC Campus Climate Survey (I. R. Corporation, n.d.), the Purdue University Faculty Survey (2001), Texas A & M Faculty Work Life Survey (n.d.), the UCLA Faculty Survey (HERI Faculty Survey, n.d.), and the University of Kansas Faculty Work Satisfaction Survey (n.d.). Due to the fact that this survey was being conducted as a consequence of a legal action to abate a higher education desegregation plan, literature was examined to highlight aspects of this particular issue in the survey. For example, studies such as Astin (1993); Bidell, Lee, Bouchie, Ward, and Brass (1994, April); Chang (1997); Hurtado, Milem, Clayton-Pedersen, and Allen (1998); and Milem and Astin (1994, April) were examined to assist in the final wording of items to avoid racial insensitivity and address all sides of the issue. For further clarification of methodological issues, studies such as the Michigan faculty work-life study report (1999) were examined.

This review was also used to identify the bases on which to develop potential items for the survey. A representative committee of researchers and administrators of TBR and UT systems reviewed the items and provided feedback. From this feedback, a draft instrument was

developed which underwent at least four additional revisions based on reviews by this group. This resulted in a 36-item instrument, the "Tennessee Higher Education Climate Survey" (THECS) that included seven demographic items. Each of the 29 survey items that probed on campus climate had a 5-point scale that was scored according to the following scale: 1 = strongly disagree, 2 = disagree, 3 = undecided or neutral, 4 = agree, and 5 = strongly agree. There was also an option to indicate that the item was "not applicable." As all 29 items were stated positively, the larger the score, the more positive the response. "Not applicable" responses were omitted from the analyses. Thus, a score of "3" was a neutral response and a value below 3 was negative and a value above 3 was positive. A pilot study was conducted to test both the survey itself and the user-friendliness and data collection procedures of conducting the survey via the Internet. A copy of the survey is attached as Appendix A.

Data Collection

From the inception of this study, a decision was made to administer the survey over the Internet. The survey population of higher education faculty and administrators all had access to the Internet and at least a basic knowledge of its use. Arrangements were made with a third-party consult to format the survey in HTML code, install it on a website, and extract the collected data and create an Excel data file. The survey was posted on the website created for this purpose and tested, which included a final test by the review group. Once the initial bugs were resolved, arrangements were made for each campus's chief academic officer to send a message to all faculty and upper-level administrators at his or her institution with a request to complete the survey. This request provided the URL for the website, a user ID, and the password and the required instructions for completing the survey. This activity was completed by January 08, 2002. Although the participation was voluntary, all faculty and administrators were urged to complete the survey. Respondents could click on the URL of the website, enter their institutions' User ID and password, complete the survey, and then select the "submit" button to submit it to the database.

Originally, it was planned to make Friday, February 1, 2002 as the closing date, but it was extended to keep the survey available for use through the next Wednesday (February 6, 2002) to accommodate respondents. On that date, a notice was posted on the website that read, "NOTE, The Tennessee Higher Education Campus Climate Survey is no longer available. The deadline for submitting survey responses was February 1, 2002." At least twice a week during the data collection, the database was observed and the institutions that had no faculty hits were noted and reported such data to the designated individuals in TBR and UT systems. By Thursday, January 31, 2002, a sample of faculty members and upper-level administrators from every campus that was targeted had participated in the survey. Thus, faculty and administrators at all Tennessee public institutions of higher education had the opportunity to participate. Accordingly, the survey population consisted of all faculty and high-level administrators of all public institutions of higher education in Tennessee.

Data Preparation

Preparing data for analysis involved screening the data for internal consistency, multiple submissions, blank submissions, and key-entry errors in the responses. The original database

included 3,313 cases. Each of these cases represented someone who had selected the "submit" button on the survey Website. However, these cases also included respondents who had pressed the submit button in error before completing the survey or clicked on the "submit" button more than once. The survey was designed for each respondent's unique computer address to be transmitted with the return of the survey. These addresses were useful in detecting duplicate submissions. Furthermore, using the computer address- sorted file, the User IDs and passwords were checked for authenticity of responses. Consequent to the scrutiny of the Web-driven survey procedure, the total number of valid cases was reduced to 2,792. These cases were subjected to further EDA procedures and the valid, final dataset yielded 2,784 cases. More details of the data screening process are given in Appendix B) Based on The Statistical Abstract of Tennessee Higher Education 2000-2001 and The University of Tennessee Fact Book 2000-2001, of the target population of approximately 6,160 respondents; the final dataset represented a 45.2% return rate, a high rate of return by the current standards (Mertler, 2002). Of these, 2,381 (85.5%) were from Caucasians, 184 (6.6%) were from African Americans, 22 (0.8%) were from Hispanics, and 133 (4.8%) were others not in these three classifications. Sixty-four respondents (2.3%) did not identify their ethnicity. Gender distribution among the respondents constituted of 1169 (42%) female, 1531 (55%) male, and 84 (3%) with no gender identification. Standardized Cronbach alpha yielded a good reliability score of 0.87.

Research Questions

While the original purpose of the survey was to answer some specific questions required by the Geier Consent Decree, the richness of the dataset begged for additional analyses. This paper is restricted to a strand of related questions. What are the overall dimensions of campus climate in TN? Do the overall dimensions of campus climate in TN confirm the facets of campus climate described in the current literature? Are there any variances in dimensions of campus climate among sub groups by a number of demographic variables (ethnicity and gender) in TN higher education institutions?

Analysis of Data

Two types of data analyses were conducted using the SPSS® 11.5 for Windows. The first set of analyses includes: descriptive statistics, correlation coefficients, Cronbach alpha coefficient for internal consistency reliability, and effect size calculations on response means between Caucasian and non-Caucasian respondents. These results are discussed in detail in McLean (2002). Some of these findings will be discussed as they relate to the next set of analyses. The second set of analyses includes a number of factor analyses conducted with the selected relevant items from the THECS dataset.

Although the THECS was based on an extensive review of the literature and using a thorough instrument design review process, we opted to take the exploratory route in the factor analytical phase. We made this decision based on our willingness to investigate further the potency of this instrument. In all factor analyses, we used the Principal Component Analysis (PCA) method for factor extraction; the varimax method with Kaiser normalization of component scores for factor rotation; the value of 1.0 for minimum eigen value for determining the maximum number of factors to extract; correlation matrix for the data method; and list wise

exclusion of missing vales. We chose to use the PCA method to maintain estimates of the total variance and to be independent of the reliability of the instrument. All factor analyses yielded satisfactory Kaiser-Meyer-Olkin (KMO) statistics for sample adequacy. Bartlett's test for sphericity also yielded statistically significant results in all factor analyses indicating the factorability of the correlation matrix. Some clarification is in order for using the orthogonal rotation of initial factor extraction. Conceivably, one can argue that all constituent parts of the construct, campus climate, or many constructs for that matter are interrelated (Pedhazur & Schmelkin 1991). Therefore, a better strategy might be to use an appropriate non-orthogonal factor rotation method. We argue that given the nature of the survey instrument, THECS a stand for correlation among factors is hard to justify. This is evident from the following list of initially identified dimensions of campus climate: recruitment and retention; teaching, research, and public service; tenure; faculty and administrator influence on campus; and campus/community environment. Also, we were interested in the independent dimensions addressed by the instrument.

To answer the first research question, an exploratory factor analysis (using the total sample) was conducted with the 29 items that probed into campus climate among the state related institutions of higher education in TN. This yielded six factors and their factor loading on each item can be seen in Table 1. Six factors accounted for over 58% of the total variation in the score matrix. As expected the component score covariance matrix produced an identity matrix.

Table 1 appears about here

By examining the factor loadings on survey items we tentatively designated the dimensions with the following identifiers: work-related satisfaction, satisfaction with teaching conditions, appreciation of African-American faculty and staff, satisfaction with collegiality/opportunity to grow, appreciation of diversity, and satisfaction with available resources. Do these results confirm the current literature on campus climate? The answer is yes in a limited sense. These findings confirm the composition of dimensions of campus climate in a specific context, campus diversity, but not in a general sense of explaining campus climate.

We adopted the following procedure to answer the last research question—Do the dimensions of campus climate vary among sub groups by a number of demographic variables in TN higher education institutions? With regard to any demographic variable, we hypothesized that if there is no difference in the factor structure among the categories of any demographic variable, then the overall factor structure must hold true for all such categories. We tested this hypothesis using two categorical variables: gender and ethnicity. The latter variable, ethnicity, included only two categories: Whites and non-Whites. To test this hypothesis for the two categorical variables, we applied two approaches. One was to run separate EFAs for each sub sample by categories (Raykov & Marcoulides, 2000; Schumacker & Lomax, 1996) and the other approach was to run separate EFAs by including each demographic variable (one at a time) as a dummy variable into the total sample (Levine, 1977). First, the results of sub sample EFA will be

discussed, which will be followed by the discussion of the results of the dummy variable approach. For brevity, only the most significant findings are elaborated in this paper.

For the sample consisting of females, EFA extracted six factors, which accounted for about 58% of the total variance in the score matrix. This result is comparable with the overall EFA results. In comparison to the overall EFA, some slight variations in the factor loading on certain items are apparent. The items on which the six factors load are exactly the same, except for the item number 24, which is,

My salary is fair, as compared with others of the same rank in my department.

In the overall EFA, Factor 1 (work related satisfaction) loads on this item whereas in the case of the sample consisting of female this item is influenced by Factor 6 (Satisfaction with available resources). This may indicate the influence of salary-gender gap between the two groups on their perception of campus climate (Hartman 2000; Luna 1990). The rotated factor component matrix is given in Table 2.

Table 2 appears about here

For the sample consisting of males, EFA extracted six factors, which accounted for about 59% of the total variance (about 1% higher than the overall EFA results) in the score matrix. In comparison to the overall EFA, there is virtually no difference between the factor loadings on the items between the results of the overall EFA and the results of the EFA for the sub-sample consisting of males, except the fact that the ordering (Factor 1, Factor 2, etc.) of factor loading on items differ between the two analyses. Nevertheless, this should not raise any alarm as the interpretation of the meaning of factors rests with the investigator. The rotated factor component matrix is given in Table 3.

Table 3 appears about here

For the sample consisting of non-whites, EFA extracted six factors, which accounted for about 63% of the total variance matrix (about 5% higher than the overall EFA results) in the score. In comparison to the overall EFA, we see some major differences in the results of the EFA in the non-white sub-sample. The rotated factor component matrix is given in Table 4.

Table 4 appears about here

Although this sub-sample yields the same number of factors (6) as in the case of overall EFA, their factor loadings show clear differences. In the factor-item loading structures between the non-white sub-sample results and the overall sample results, the only similarity we find is in

relation to Factor 2—Satisfaction With Teaching Conditions. All the other factor loadings on items differ on the a) number of items affected by a particular factor, b) sequential order of factor-item loading, and c) magnitude of factor-item loading. One noteworthy outcome shown in the non-white sub-sample results is the Factor 5-item loadings. It loads on the following items, which are numbers 16 and 18 respectively,

In my department, the promotion and tenure process works satisfactorily.
Those who do well in my position stand a fair chance of being promoted.

These two items clearly relates to one aspect of faculty life, tenure and promotion. This may present some evidence for the concerns the non-white faculty have in relation to tenure and promotion. This interpretation is in congruence with the findings of the effect size analysis conducted by the first author (McLean, 2002). For comparative purpose, in the overall analysis, Factor 4 loads on the above two items (16 and 18) together with the item numbers 5 and 17, which are given below,

I am satisfied with the level of communication I have with colleagues in my department.
Junior faculty in my department are given adequate mentoring to support their progress toward tenure and promotion.

Conceptually, although the item number 17 may seem to be gravitating with the item numbers 16 and 18 in the non-white sub-sample, the item number 17 groups with the item numbers 25 and 26, which are given below,

I am satisfied with the availability of social and leisure activities in the local community.
African American faculty at my institution are respected by students.

These data provide evidence for the differences between the overall results and the non-white sub-sample results. Factor-item loading differences are summarized in Table 5.

Table 5 appears about here

For the sample consisting of whites, EFA extracted six factors, which accounted for about 58% of the total variance in the score matrix. This result is comparable to the overall EFA results. In comparison to the overall EFA, there is virtually no difference between factor loadings on the items between the results of the overall EFA and the results of the EFA for the sub-sample consisting of whites, except the fact that the ordering (Factor 1, Factor 2, etc.) of factor loading on items differ between the two analyses. Nevertheless, this should not raise any alarm as the interpretation of the meaning of factors rests with the investigator. The rotated factor component matrix is given in Table 6.

Table 6 appears about here

The next approach to sub-sample analysis concerns the inclusion of demographic variable (one at a time) into the data matrix for EFA. The EFA analysis consisting of the Gender dummy variable yielded six factors, which accounted for about 56% of the total variance (about 2% lower than the overall EFA results) in the score matrix. In comparison to the overall EFA, there is virtually no difference between factor loadings on the items between the results of the overall EFA and the results of the EFA with variable Gender as a dummy variable. This is what we normally expected. It is important to note that the Gender variable grouped with the items influenced by Factor 6 (satisfaction with available resources). This demonstrates a factor score mean difference between male and female on satisfaction with resource availability. This result confirms the conclusion derived by the sub-sample analyses for gender. The rotated factor component matrix is given in Table 7.

Table 7 appears about here

The EFA analysis consisting of the RaceGroup dummy variable yielded six factors, which accounted for about 57% of the total variance (about 1% lower than the overall EFA results) in the data matrix. In comparison to the overall EFA, there is almost no difference between factor loadings on the items between the results of the overall EFA and the results of the EFA run with the RaceGroup dummy variable, except the fact that the ordering (Factor 1, Factor 2, etc.) of factor loading on items differ between the two analyses. Nevertheless, this is a trivial issue as the interpretation of the meaning of factors rests with the investigator. What is important to note in this analysis is that the RaceGroup dummy variable grouped with the items influenced by Factor 5 (appreciation of diversity). This demonstrates a factor score mean difference between whites and non-whites on appreciation of diversity. This result is in congruence with the conclusion derived by the sub-sample analyses for RaceGroup variable. The rotated factor component matrix is given in Table 8.

Table 8 appears about here

Conclusion and Recommendations

This paper dealt with three important aspects of survey research: one, designing survey instruments for measuring constructs on a statewide basis; two, ideas on how to improve Web-based survey design and administration and; three, analysis of survey data. This paper explained the steps taken to establish validity and reliability of the THECS. We also discussed a number of contemporary issues (Becker & Sweeney, 2002) in Web-based survey design and administration: Factor analytic results demonstrated that perception differentials among sub-samples can be detected more systematically through factor analysis.

We want to emphasize that we consider this paper a work-in-progress as many other analyses could be conducted such as the derivation of goodness-of-fit test statistics for factor

structures among various sub-samples. Nevertheless, our analyses highlighted some important issues: in measuring the perception of campus climate (or any construct for that matter) the need for sub-sample analyses when the population consists of such groups; the need for closer examination of factor-items loadings when the sample consists of various sub groups; and the need for using factor analytical techniques in place of t-test or ANOVA, especially when researchers deal with large sample sizes. We hope this paper would add at least in a minuscule way to expand our knowledge base in conducting Web-based surveys and analyzing survey data.

References

Astin, A. W. (1993). Diversity and multiculturalism on campus: How are students affected? Change, 25(2), 44-49.

Becker, J. D. & Sweeney, K. (2002 April). Web-Based Surveys: *Are Schools and Educators Ready for Next-Generation Research Methods?* Paper presented at the annual meeting of the American Educational Research Association, New Orleans, LA.

Bidell, T. R., Lee, E. M., Bouchie, N., Ward, C., & Brass, D. (1994, April). Developing conceptions of racism among young white adults in the context of cultural diversity course-work. Paper presented at the annual meeting of the American Educational Research Association, New Orleans, LA. (ERIC Document Reproduction Service No. ED 377 270).

Chang, M. J. (1997, November). Racial diversity: A compelling interest for higher education. Paper presented at the national conference of the Association for the Study of Higher Education, Albuquerque, NM.

Geier, et al., v. Sunquist, et al. (2001). Consent Decree. United States District Court for the Middle District of Tennessee, Nashville, TN. Retrieved February 14, 2002 from http://www.tbr.state.tn.us/general_counsel/desegregation.htm.

Hartman, H. I. (2000). New and Stronger Remedies Are Needed To Reduce Gender-Based Wage Discrimination. (Testimony of the author before the U.S. Senate Committee on Health, Education, Labor and Pensions Hearing on gender-based wage discrimination.) ERIC Reproduction Service No. ED ED452 347.

HERI Faculty Survey (n.d.) University of California Los Angeles. Retrieved December 2001 from http://www.gseis.ucla.edu/heri/c_button5.html.

Hurtado, S., Milem, J. F., Clayton-Pedersen, A. R., & Allen, W. R. (1998). Enhancing campus climates for racial/ethnic diversity: Educational policy and practice. The Review of Higher Education, 21(3), 279-302.

I. R. Corporation. (n.d.). Campus climate survey. Author. Retrieved December 2001 from www.ircorporation.com/irc-CLIMATESURVEY.htm.

Lee, A. C., Frank, J., Cole G. & Mikhael, M. Z. (2002 April). *Web-Based Surveys for Data Gathering from Medical Educators: An exploration of the efficacy and impact of follow-up reminders.* Paper presented at the annual meeting of the American Educational Research Association, New Orleans, LA.

Levine, M. S. (1977). *Canonical analysis and factor comparison*. (Sage Publications in Quantitative Applications in the Social Sciences Series, No. 6). Thousands Oaks, CA: Sage Publications.

Luna, G. (1990). Understanding Gender-Based Wage Discrimination: Legal Interpretation and Trends of Pay Equity in Higher Education. *Journal of Law and Education*, 19(3), 371-384.

Lucas, S. & Valentine J. (2002 April). The Design and Implementation of a Web-Based National Survey of Middle Level Principals. Paper presented at the annual meeting of the American Educational Research Association, New Orleans, LA.

McLean, J. E. (2002). Report of the findings from the Tennessee Higher Education Campus Climate Survey. Survey completed under contract to the Tennessee Board of Regents and the University of Tennessee System. Nashville, TN.

Mertler, C. A. (2002 April). Web-Based Surveys: *Guiding Lessons for their Use*. Paper presented at the annual meeting of the American Educational Research Association, New Orleans, LA.

Michigan faculty work-life study report (1999). (By The Center for the Study of Higher Education and Postsecondary Education, & The Center for the Education of Women). Ann Arbor, MI: The Regents of the University of Michigan.

Milem, J. F., & Astin, H. S. (1994, April). Scientists as teachers: A look at their culture, their roles, and their pedagogy. Paper presented at the annual meeting of the American Educational Research Association, New Orleans, LA.

Pedhazur, E. J. & Schmelkin, L. P. (1991). *Measurement, design, and analysis: An integrated approach*. Hillsdale, NJ: Lawrence Erlbaum Associates, Inc.

Purdue University Faculty Survey (2001). Faculty Affairs Committee, Purdue University Senate. Purdue, IN.

Raykov, T. & Marcoulides, G. A. (2000). *A first course in structural equation modeling*. Mahwah, NJ: Lawrence Erlbaum Associates, Inc.

Schumacker, R. E. & Lomax, R. G. (1996). A beginner's guide to structural equation modeling. Mahwah, NJ: Lawrence Erlbaum Associates, Inc.

Texas A & M University Faculty Work Life Survey (n.d.). Retrieved December 2001 from www.tamu.edu/hrd/worklife/faculty/hr-faculty-survey.htm.

The Statistical Abstract of Tennessee Higher Education 2000-2001. Available from: (http://www.state.tn.us/thec/data_stat/fact_book_final.pdf)

The University of Kansas Faculty Work Satisfaction Survey (n.d.). Retrieved December 2001 from www.ukans.edu/~unigov/appd1.html.

The University of Tennessee Fact Book 2000-2001 Available from: *http://web.utk.edu/~oira/stats.html*

Walston, J. T. Lissitz, R. & Rudner, L. (2001 April). *The Influence of Web-based Questionnaire Presentation Variations on Survey Cooperation and Survey Responses*. Paper presented at the annual meeting of the American Educational Research Association, Seattle, WA.

Table 1

Rotated Component Matrix (a)
(Total Sample Analysis)

	Component					
	1	2	3	4	5	6
Q2	.793	.130	.086	.230	.110	.045
Q3	.755	.188	.069	.132	.092	.180
Q6	.708	.088	.141	.167	.163	.108
Q1	.691	.225	.063	.222	.205	.075
Q12	.659	.172	.197	.051	.042	.164
Q20	.604	.073	.168	.010	.152	.201
Q19	.576	.096	.122	.357	.062	.081
Q4	.501	.099	.062	.296	.401	.045
Q24	.386	.195	.115	.282	.013	.241
Q10	.161	.810	.005	.057	.068	.098
Q15	.163	.761	.077	.198	.079	.085
Q13	.097	.750	.061	.106	.035	.035
Q14	.133	.674	.027	.114	.030	.223
Q11	.160	.557	.123	-.029	.145	.060
Q28	.150	.064	.819	.153	.128	.052
Q26	.117	.104	.802	.110	.181	.070
Q27	.182	.072	.781	.112	.291	.051
Q29	.327	.114	.498	.200	.314	.064
Q16	.203	.129	.143	.776	.091	.089
Q17	.151	.112	.130	.719	.140	.112
Q18	.229	.085	.184	.671	.065	.156
Q5	.382	.090	-.004	.536	.210	-.103
Q23	.143	.067	.209	.044	.731	.124
Q21	.241	.028	.288	.136	.698	.022
Q22	.349	.046	.245	.067	.653	.143
Q25	-.021	.256	.080	.189	.491	.095
Q9	.190	.089	.114	.096	.038	.752
Q8	.099	.117	-.008	.104	.155	.663
Q7	.285	.258	.076	.047	.109	.640

Extraction Method: Principal Component Analysis. Rotation Method: Varimax with Kaiser Normalization.
a Rotation converged in 6 iterations.

Table 2

Rotated Component Matrix (a, b)
(Sub-Sample Analysis for Female)

	Component					
	1	2	3	4	5	6
Q3	.769	.168	.003	.185	.142	.159
Q2	.768	.115	.020	.287	.160	.023
Q6	.701	.081	.159	.078	.147	.127
Q1	.667	.268	.069	.229	.253	.029
Q12	.627	.141	.181	.025	.022	.218
Q19	.541	.030	.265	.271	-.049	.161
Q20	.509	.049	.202	-.148	.129	.415
Q4	.506	.144	.091	.352	.337	.066
Q10	.121	.809	-.026	.044	.055	.074
Q13	.057	.750	.095	.148	.090	.011
Q15	.130	.749	.091	.217	.079	.090
Q14	.220	.690	-.042	.061	.063	.121
Q11	.092	.552	.267	-.103	-.060	.167
Q28	.135	.058	.800	.192	.156	.019
Q26	.115	.127	.781	.154	.190	.037
Q27	.170	.067	.763	.124	.314	.056
Q29	.412	.101	.490	.167	.261	.122
Q16	.188	.092	.102	.794	.101	.104
Q18	.163	.063	.194	.699	.095	.196
Q17	.131	.109	.128	.686	.117	.135
Q5	.421	.103	.109	.515	.088	-.108
Q23	.041	.021	.160	.089	.773	.154
Q21	.274	.018	.274	.098	.680	.031
Q22	.337	.016	.218	.014	.659	.254
Q25	.076	.244	.156	.226	.464	-.007
Q9	.112	.105	.109	.141	.039	.741
Q8	.110	.084	-.072	.142	.180	.612
Q7	.355	.289	.046	.056	.106	.499
Q24	.332	.140	.139	.271	.027	.338

Extraction Method: Principal Component Analysis. Rotation Method: Varimax with Kaiser Normalization.
a Rotation converged in 7 iterations.
b Only cases for which GENDER = 1 are used in the analysis phase.

Table 3

Rotated Component Matrix (a, b)
(Sub-Sample Analysis for Male)

	Component					
	1	2	3	4	5	6
Q2	.816	.132	.136	.173	.105	.053
Q3	.759	.130	.210	.090	.064	.174
Q1	.714	.069	.170	.198	.227	.112
Q6	.714	.192	.080	.210	.105	.123
Q12	.656	.223	.206	.091	.014	.170
Q20	.625	.233	.102	.106	.027	.142
Q19	.593	.097	.128	.388	.078	.082
Q4	.533	.101	.029	.204	.465	.062
Q24	.394	.075	.224	.263	.053	.218
Q27	.195	.812	.066	.117	.157	.057
Q28	.150	.804	.068	.155	.040	.066
Q26	.093	.782	.067	.097	.137	.109
Q29	.292	.527	.102	.205	.268	.056
Q10	.186	.051	.809	.052	.079	.127
Q15	.185	.085	.777	.179	.092	.078
Q13	.119	.032	.756	.069	.020	.040
Q14	.073	.074	.664	.159	-.020	.268
Q11	.194	.069	.529	-.008	.274	.068
Q16	.238	.179	.160	.760	.077	.070
Q17	.172	.188	.110	.737	.114	.099
Q18	.291	.181	.118	.649	.022	.104
Q5	.395	-.044	.032	.503	.333	-.043
Q25	-.081	.071	.227	.145	.584	.191
Q23	.224	.415	.109	-.003	.579	.090
Q21	.246	.454	.005	.139	.574	.023
Q22	.357	.428	.062	.075	.517	.087
Q9	.215	.120	.082	.060	.014	.764
Q7	.246	.127	.233	.051	.094	.706
Q8	.095	.015	.151	.098	.163	.654

Extraction Method: Principal Component Analysis. Rotation Method: Varimax with Kaiser Normalization.
a Rotation converged in 7 iterations.
b Only cases for which GENDER = 2 are used in the analysis phase.

Table 4

Rotated Component Matrix (a, b)
(Sub-Sample Analysis for Non-Whites)

	Component					
	1	2	3	4	5	6
Q6	.771	.042	.151	.264	.029	.094
Q4	.766	.174	.292	.069	.032	.112
Q3	.742	.212	.134	.324	.120	-.014
Q2	.733	.253	.246	.152	.059	.122
Q5	.705	.166	-.012	-.062	.269	.154
Q27	.644	.098	.453	.145	.132	-.080
Q1	.633	.181	.350	.282	.108	.138
Q19	.484	.037	-.015	.469	.078	.338
Q28	.461	.022	.376	.004	.397	-.175
Q29	.460	.286	.404	.199	.201	.087
Q10	.112	.841	.139	.161	-.037	.101
Q15	.158	.777	.081	.128	.331	-.065
Q13	.110	.749	.067	-.051	.205	.168
Q14	.250	.746	.009	.117	-.166	-.075
Q11	.098	.637	-.093	.246	.092	.087
Q23	.134	.019	.782	.144	-.030	.032
Q21	.309	.065	.754	.082	.030	.180
Q22	.273	-.029	.697	.146	-.013	.151
Q9	.056	.237	.114	.656	.216	-.182
Q7	-.036	.351	.341	.654	.039	-.206
Q8	.012	.238	.119	.651	-.027	.163
Q20	.402	.032	.124	.613	-.022	.132
Q12	.449	-.077	.184	.597	.135	-.089
Q24	.328	.026	-.023	.503	.032	.073
Q16	.159	.163	-.058	.040	.798	.207
Q18	.193	.144	.434	.229	.537	-.109
Q25	.100	.130	.355	-.082	.098	.675
Q17	.204	.042	-.150	.231	.501	.532
Q26	.408	.111	.306	.055	-.003	.423

Extraction Method: Principal Component Analysis. Rotation Method: Varimax with Kaiser Normalization.
a Rotation converged in 80 iterations.
b Only cases for which RACEGRP = 1 are used in the analysis phase.

Table 5

Comparison of Factor-Item Loadings Among the Different EFA Results

Item	Overall	Sub-Samples				Dummy Variables	
		Female	Male	Non-White	White	Gender	RaceGroup
	Factor, Loadings	Factor, Loadings	Factor, Loadings	Factor, Loadings	Factor, Loadings	Factor, Loadings	Factor, Loadings
1	1: 0.691	1: 0.667	1: 0.714	1: 0.633	1: 0.685	1: 0.678	1: 0.689
2	1: 0.793	1: 0.768	1: 0.816	1: 0.733	1: 0.798	1: 0.782	1: 0.788
3	1: 0.755	1: 0.769	1: 0.759	1: 0.742	1: 0.755	1: 0.750	1: 0.751
4	1: 0.501	1: 0.506	1: 0.533	1: 0.766	1: 0.473	1: 0.479	1: 0.523
5	4: 0.536	4: 0.515	4: 0.503	1: 0.705	3: 0.559	4: 0.560	3: 0.527
6	1: 0.708	1: 0.701	1: 0.714	1: 0.771	1: 0.698	1: 0.701	1: 0.719
7	6: 0.640	6: 0.499	6: 0.706	4: 0.654	6: 0.641	6: 0.608	6: 0.648
8	6: 0.663	6: 0.612	6: 0.654	4: 0.651	6: 0.674	6: 0.645	6: 0.664
9	6: 0.752	6: 0.741	6: 0.764	4: 0.656	6: 0.744	6: 0.715	6: 0.750
10	2:0.810	2: 0.809	3: 0.809	2: 0.841	2: 0.807	2: 0.809	2: 0.811
11	2: 0.557	2: 0.552	3: 0.529	2: 0.637	2: 0.545	2: 0.557	2: 0.558
12	1: 0.659	1: 0.627	1: 0.656	4: 0.597	1: 0.666	1: 0.668	1: 0.664
13	2: 0.750	2: 0.750	3: 0.756	2: 0.749	2: 0.766	2: 0.751	2: 0.767
14	2: 0.674	2: 0.690	3: 0.664	2: 0.746	2: 0.665	2: 0.676	2: 0.673
15	2: 0.761	2: 0.749	3: 0.777	2: 0.777	2: 0.765	2: 0.762	2: 0.763
16	4: 0.776	4: 0.794	4: 0.760	5: 0.798	3: 0.775	4: 0.766	3: 0.774
17	4: 0.719	4: 0.686	4: 0.737	6: 0.532	3: 0.719	4: 0.706	3: 0.711
18	4: 0.671	4: 0.699	4: 0.649	5: 0.537	3: 0.689	4: 0.662	3: 0.674
19	1: 0.576	1: 0.541	1: 0.593	1: 0.484	1: 0.571	1: 0.573	1: 0.569
20	1: 0.604	1: 0.509	1: 0.625	4: 0.613	1: 0.604	1: 0.612	1: 0.612
21	5: 0.698	5: 0.680	5: 0.574	3: 0.754	5: 0.709	5: 0.701	5: 0.681
22	5: 0.653	5: 0.659	5: 0.517	3: 0.697	5: 0.670	5: 0.657	5: 0.584
23	5: 0.731	5: 0.773	5: 0.579	3: 0.782	5: 0.738	5: 0.733	5: 0.650
24	1: 0.386	6: 0.338	1: 0.394	4: 0.503	1: 0.393	1: 0.396	1: 0.378
25	5: 0.491	5: 0.464	5: 0.584	6: 0.675	5: 0.416	5: 0.491	5: 0.439
26	3: 0.802	3: 0.781	2: 0.782	6: 0.423	4: 0.824	3: 0.801	4: 0.793
27	3: 0.781	3: 0.763	2: 0.812	1: 0.644	4: 0.774	3: 0.781	4: 0.754
28	3: 0.819	3: 0.800	2: 0.804	1: 0.461	4: 0.824	3: 0.819	4: 0.799
29	3: 0.498	3: 0.490	2: 0.527	1: 0.460	4: 0.437	3: 0.500	4: 0.448
Gender						6.0: 311	
RaceGrp							5: 0.477

Table 6

Rotated Component Matrix (a, b)
(Sub-Sample Analysis for Whites)

	Component					
	1	2	3	4	5	6
Q2	.798	.107	.240	.087	.078	.064
Q3	.755	.181	.131	.065	.077	.193
Q6	.698	.084	.179	.140	.170	.106
Q1	.685	.216	.243	.052	.171	.097
Q12	.666	.180	.063	.178	.085	.126
Q20	.604	.083	.013	.145	.198	.156
Q19	.571	.100	.367	.100	.081	.055
Q4	.473	.084	.321	.028	.378	.093
Q24	.393	.209	.277	.100	.017	.227
Q10	.167	.807	.056	.001	.038	.105
Q13	.095	.766	.099	.072	.037	.036
Q15	.169	.765	.192	.062	.089	.066
Q14	.125	.665	.136	.024	-.002	.249
Q11	.173	.545	-.044	.103	.203	.033
Q16	.213	.126	.775	.139	.102	.081
Q17	.147	.117	.719	.138	.146	.108
Q18	.230	.084	.689	.172	.051	.135
Q5	.351	.075	.559	-.015	.189	-.058
Q26	.114	.095	.104	.824	.186	.082
Q28	.160	.061	.151	.824	.134	.069
Q27	.165	.066	.115	.774	.301	.046
Q29	.344	.098	.209	.437	.353	.044
Q23	.135	.086	.065	.190	.738	.103
Q21	.236	.032	.155	.242	.709	-.003
Q22	.348	.059	.085	.219	.670	.132
Q25	-.036	.257	.185	.124	.416	.170
Q9	.196	.077	.085	.138	.045	.744
Q8	.099	.113	.092	-.040	.170	.674
Q7	.299	.246	.062	.109	.070	.641

Extraction Method: Principal Component Analysis. Rotation Method: Varimax with Kaiser Normalization.
a Rotation converged in 6 iterations.
b Only cases for which RACEGRP = 2 are used in the analysis phase.

Table 7

Rotated Component Matrix (a)

	Component					
	1	2	3	4	5	6
Q2	.782	.126	.088	.253	.119	.023
Q3	.750	.186	.071	.151	.101	.160
Q6	.701	.086	.143	.184	.171	.086
Q1	.678	.221	.064	.244	.213	.059
Q12	.668	.177	.197	.055	.051	.121
Q20	.612	.077	.168	.015	.160	.166
Q19	.573	.099	.124	.364	.068	.058
Q4	.479	.092	.064	.320	.405	.052
Q24	.396	.204	.114	.276	.017	.219
Q10	.159	.809	.005	.062	.071	.080
Q15	.162	.762	.078	.199	.081	.067
Q13	.096	.751	.062	.107	.037	.015
Q14	.136	.676	.027	.113	.031	.214
Q11	.159	.557	.124	-.025	.148	.041
Q28	.146	.064	.819	.153	.129	.057
Q26	.122	.108	.801	.102	.183	.061
Q27	.175	.071	.781	.115	.293	.054
Q29	.310	.109	.500	.216	.316	.078
Q16	.202	.138	.144	.766	.089	.087
Q17	.153	.122	.130	.706	.137	.107
Q18	.229	.094	.184	.662	.064	.157
Q5	.351	.082	3.329E-05	.560	.211	-.082
Q23	.141	.070	.209	.044	.733	.113
Q21	.231	.028	.288	.143	.701	.014
Q22	.345	.048	.245	.073	.657	.130
Q25	-.016	.263	.079	.178	.491	.078
Q9	.242	.116	.106	.056	.040	.715
Q8	.138	.138	-.015	.073	.156	.645
Q7	.323	.278	.070	.022	.113	.608
GENDER	-.230	-.096	.060	.156	-.007	.311

Extraction Method: Principal Component Analysis. Rotation Method: Varimax with Kaiser Normalization.
a Rotation converged in 6 iterations.

Table 8

Rotated Component Matrix (a)

	Component					
	1	2	3	4	5	6
Q2	.788	.129	.235	.070	.097	.049
Q3	.751	.192	.138	.051	.070	.183
Q6	.719	.088	.169	.162	.093	.107
Q1	.689	.223	.229	.044	.201	.083
Q12	.664	.168	.064	.220	-.027	.163
Q20	.612	.081	.014	.184	.084	.203
Q19	.569	.099	.367	.128	.032	.079
Q4	.523	.102	.276	.046	.398	.052
Q24	.378	.191	.284	.068	.047	.244
Q10	.155	.811	.056	-.013	.073	.104
Q13	.087	.767	.109	.077	.022	.030
Q15	.162	.763	.197	.068	.074	.085
Q14	.119	.673	.126	.002	.044	.224
Q11	.190	.558	-.045	.149	.066	.057
Q16	.212	.127	.774	.137	.095	.084
Q17	.167	.113	.711	.143	.122	.109
Q18	.230	.083	.674	.169	.092	.153
Q5	.393	.093	.527	-.006	.199	-.100
Q28	.160	.067	.169	.799	.160	.053
Q26	.128	.104	.115	.793	.190	.072
Q27	.189	.071	.120	.754	.331	.051
Q29	.359	.116	.201	.448	.338	.064
Q21	.291	.032	.106	.278	.681	.031
Q23	.216	.080	-.001	.238	.650	.132
Q22	.408	.055	.030	.259	.584	.152
RACEGRP	-.105	-.024	.098	.050	.477	-.024
Q25	.020	.255	.158	.105	.439	.124
Q9	.190	.089	.104	.140	-.005	.750
Q8	.108	.123	.091	-.041	.187	.664
Q7	.286	.256	.058	.095	.060	.648

Extraction Method: Principal Component Analysis. Rotation Method: Varimax with Kaiser Normalization.
a Rotation converged in 6 iterations.

Appendix-A

Survey Instrument
TENNESSEE HIGHER EDUCATION CAMPUS CLIMATE SURVEY
A Joint Survey by the
University of Tennessee and the Tennessee Board of Regents Systems

DIRECTIONS: Below are a number of statements relating to the climate on your campus. Please indicate your degree of agreement with each of these statements by pointing your curser to the appropriate drop-down menu and selecting your choice from the following scale: SD = Strongly Disagree, D = Disagree, U = Undecided or Neutral, A = Agree, SA = Strongly Agree, and NA = Not Applicable. Once you make your selection, click the mouse.

Campus Climate Statements	Responses SD D U A SA NA
1. Overall, I am satisfied with my work life at my institution.	SD D U A SA NA
2. I feel my work is appreciated at my institution.	SD D U A SA NA
3. I feel my work is supported at my institution.	SD D U A SA NA
4. I feel welcome in the community.	SD D U A SA NA
5. I am satisfied with the level of communication I have with colleagues in my department.	SD D U A SA NA
6. I am satisfied with the level of communication I have with my institution's administration.	SD D U A SA NA
7. I am satisfied with the quality of research facilities available to me.	SD D U A SA NA
8. I am satisfied with the office space available to me.	SD D U A SA NA
9. I am satisfied with the technology resources available to me.	SD D U A SA NA
10. I am satisfied with my teaching load.	SD D U A SA NA
11. I am comfortable with the size of the classes I teach.	SD D U A SA NA
12. Administrative personnel are helpful.	SD D U A SA NA
13. The number of contact hours I have with students is reasonable.	SD D U A SA NA
14. The time available for my research is reasonable.	SD D U A SA NA
15. My teaching schedule is satisfactory considering the needs of students and other faculty.	SD D U A SA NA

16. In my department, the promotion and tenure process works satisfactorialy.	SD D U A SA NA
17. Junior faculty in my department are given adequate mentoring to support their progress toward tenure and promotion.	SD D U A SA NA
18. Those who do well in my position stand a fair chance of being promoted.	SD D U A SA NA
19. Faculty have adequate input and influence on the policies and procedures of my academic unit.	SD D U A SA NA
20. Faculty are often consulted prior to significant changes in university policies and procedures.	SD D U A SA NA
21. Diversity is a priority in my institution.	SD D U A SA NA
22. This campus is very committed to enhancing the campus climate for all students.	SD D U A SA NA
23. My campus sponsors extra-curricular activities that promote cultural awareness and racial understanding among students.	SD D U A SA NA
24. My salary is fair, as compared with others of the same rank in my department.	SD D U A SA NA
25. I am satisfied with the availability of social and leisure activities in the local community.	SD D U A SA NA
26. African American faculty at my institution are respected by students.	SD D U A SA NA
27. African American faculty at my institution are respected by the administration (deans, department heads, etc.)	SD D U A SA NA
28. African American faculty at my institution are respected by their peers.	SD D U A SA NA
29. My institution follows fair employment policies.	SD D U A SA NA

Please provide the following demographic information by selecting the appropriate response:	Select One
1. My present academic rank is (select one):	Do not hold rank designation Professor Associate Professor Assistant Professor Lecturer/Instructor Other
2. My tenure status is (check one):	Tenured Not Tenured, but on Tenure Track Not Tenure Track Tenure is not applicable at my institution

3. Years at my institution (check one)	1 – 3 4 – 6 7 – 12 13 – 20 21 +
4. My Gender is (check one):	Female Male
5. Ethnicity (please select one):	African American Hispanic White/Caucasian (not Hispanic) Other (not listed)
6. I am considered a full-time employee of my institution for at least nine months of the current academic year (select one):	Yes No
7. Percent of time normally devoted to (should add up to be 100%):	(Indicate Percentage) _____ Teaching/Librarianship _____ Research/Scholarship/ Creative Activities _____ Service _____ Paid Administration 100% TOTAL

Your responses will be reported only in grouped data. There are no known risks for participation in this research and the benefit to you relates to the quality of the personnel that your institution may be able to hire in the future. By submitting this survey, you are giving your permission to use your submission along with those of other respondents to provide summary reports. Please submit your survey by selecting the "submit" button.

Submit

Appendix-B

Data Screening Process

Preparing data for analysis involved screening the data for internal inconsistencies, multiple submissions, blank submissions, and errors in keying in the responses. The original database included data for 3,313 cases. Each of these cases represented someone who had selected the "submit" button on the website survey. However, these cases also included respondents who had selected the submit button in error such as doing so accidentally before completing the survey. For example, suppose someone had begun the survey, did not finish, submitted the survey anyway, but came back later, completed the survey and submitted it again. Each computer attached to the Internet had a unique address that was transmitted with the survey. These addresses were quite useful in detecting duplicate submissions. The following steps were completed to screen the data:

1. All cases were deleted that included all non-responses (missing data) or all but the first 1-3 questions was missing. This reduced the number of cases from 3,313 to 2,792.
2. The data were sorted on the computer addresses and checked for duplicate submissions. When the computer address and all demographic data were the same, all but the most complete case was deleted. This reduced the dataset by eight. In each of these situations, one response set was much more complete than the other indicating that an incomplete attempt was made and the respondent later completed the survey and submitted it again.
3. Using the computer address sorted file, the User IDs and passwords were checked. Recall that each institution had a unique User ID and password assigned. When the correct institution could be verified, the User ID and passwords were edited. All but three of these could be verified. The three cases where they could not be verified were retained, but not assigned to a specific institution.

This process resulted in a final dataset that included 2,784 cases that were used for analysis.

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